

Meeting: 1006, Lubbock, Texas, SS 12A, Special Session on Graph Theory

1006-05-42 **Klavdija Kuntnar**, University of Ljubljana, Slovenia, **Dragan Marušič**, University of Ljubljana, Slovenia, **Dave Witte Morris*** (Dave.Morris@uleth.ca), Dept of Math & CS, University of Lethbridge, Lethbridge, AB T1K 3M4, Canada, **Joy Morris**, University of Lethbridge, Canada, and **Primož Šparl**, University of Ljubljana, Slovenia. *Hamiltonian cycles in Cayley graphs of small order.*

Cayley graphs are particularly nice examples of vertex-transitive graphs, and it is conjectured that all of them have hamiltonian cycles. Although this has been verified for some particular examples, there are few general results. The authors are studying this problem for the Cayley graphs in which the number of vertices is “small.” For example, the number of vertices might be of the form kp , or kp^2 , or kpq , or $2^k p$, or pqr , where p , q , and r are distinct primes, and $k \leq 4$. This builds on unpublished work of E. Friedman and D. Jungreis. (Received January 24, 2005)